

## **REMARKS**

### **Introduction**

Claims 1 - 12 were originally pending in the PCT application to which this application claims priority. On September 20, 2000, in a paper submitted to the International Preliminary Examining Authority at the European Patent Office, claim 11 was cancelled. Also, claim 12 was canceled by way of a Preliminary Amendment filed April 3, 2001. Claim 13 has been added herein. Accordingly, claims 1 - 10 and 13 are presently pending in this application.

### **Claim Rejections**

In the most recent Office Action issued by the Examiner in this case, claims 1-2, 5, and 7-10 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,780,395 to Quinlan et al. Claims 1-5, and 7-10 were also rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 3,751,754 to Quinlan et al. Furthermore, claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Quinlan et al. '395 patent and the Quinlan et al. '754 patent in view of U.S. Patent No. 5,485,650 to Swanepoel. Claim 6 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over the Quinlan et al. '395 patent and the Quinlan et al. '754 patent in view of U.S. Patent No. 3,192,551 to Appel.

Independent claims 1 and 2 have been amended to describe an invention that includes structure that is neither disclosed nor suggested by the Quinlan et al. '395 patent, the Quinlan et al. '754 patent, the Swanepoel '650 patent, and the Appel '551 patent, either standing alone or in combination. Claims 3-10 are each ultimately dependent upon either independent claim 1 or 2 and add perfecting limitations thereto. Applicant respectfully requests reconsideration of the rejections as explained in greater detail below.

### **The Prior Art**

#### **The Quinlan et al. '754 Patent**

The Quinlan et al. '754 patent discloses a windshield wiper assembly 10 with a blade body 15 having a leaf spring means 19 disposed within a cavity 17 formed therein. The leaf spring means 19 consists of a set of leaf springs 20, 21, 22. Furthermore, the Quinlan et al. '754 reference includes several illustrations—namely, FIGS. 1, 3, and 6—which show the blade body 15 in side view. These illustrations are fragmentary on both sides of the connector 13, and as such, the total length of the blade body 15 is indeterminate. As such, the Quinlan et al. '754 patent does not disclose a windscreen wiper with a backbone made of a single, unitary, resiliently flexible beam and a force applying member connected to a backbone at points separated by spacing distance  $S$  (expressed in millimeters), wherein  $S$  equals between 0.1 and 0.35 of the total length of the backbone (expressed in millimeters). Likewise, the Quinlan '754 patent does not disclose a windscreen wiper with a backbone made of a single, unitary, resiliently flexible beam and a force applying member connected to a backbone at two spaced apart points so as to have a ratio,  $R$ , of the spacing distance between the points and the total length being between 0.1 and 0.35.

#### **The Quinlan et al. '395 Patent**

The Quinlan et al. '395 patent discloses a windshield wiper assembly 20 with a blade body 21 having a leaf spring biasing means 26 disposed within a cavity 25 formed therein. The leaf spring biasing means 26 consists of a set of leaf springs 27, 28, 29, 30, 31. However, the Quinlan et al. '395 patent does not disclose a windscreen wiper with a backbone made of a single, unitary, resiliently flexible beam and a force applying member connected to a backbone at points separated by spacing distance  $S$  (expressed in millimeters), wherein  $S$  equals between 0.1 and 0.35 of the total

length of the backbone (expressed in millimeters). Likewise, the Quinlan '395 patent does not disclose a windscreen wiper with a backbone made of a single, unitary, resiliently flexible beam and a force applying member connected to a backbone at two spaced apart points so as to have a ratio,  $R$ , of the spacing distance between the points and the total length being between 0.1 and 0.35.

### **The Windscreen Wiper of the Present Invention**

In contrast to the related art, claim 1, as amended, clarifies the invention claimed as a windscreen wiper that includes an elongate curved backbone which is made of a single, unitary, resiliently flexible beam. The wiper also includes a force applying member which is connected to the backbone at two spaced apart points. The spacing distance  $S$  (expressed in millimeters) between the two points is between  $0.1L$  and  $0.35L$  where  $L$  is the total length of the backbone (expressed in millimeters).

Also, in contrast to the related art, claim 2, as amended, clarifies the invention claimed as a windscreen wiper that includes an elongate curved backbone which is made of a single, unitary, resiliently flexible beam. The wiper also includes a force applying member which is connected to the backbone at two spaced apart points. The ratio  $R$  of spacing distance  $S$  between the points and the total length  $L$  is between 0.1 and 0.35 where the spacing distance  $S$  and the length  $L$  are expressed in the same units of measure.

### **Argument**

#### **35 U.S.C. § 102(b)**

A rejection grounded on anticipation under 35 U.S.C. § 102(b) is proper only where the subject matter claimed is identically disclosed or described in a reference. In other words,

anticipation requires the presence of a single prior art reference which discloses each and every element of the claimed invention arranged as in the claim. In re Arkley, 455 F.2d 586, 172 U.S.P.Q. 524 (C.C.P.A.); Kalman v. Kimberly-Clark Corp., 713 F.2d 760, 218 U.S.P.Q. 781 (Fed. Cir. 1983); Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 221 U.S.P.Q. 481 (Fed. Cir. 1984).

None of the references cited discloses or suggests the invention of claims 1 or 2. Specifically, the Quinlan et al. '754 patent merely discloses a windshield wiper assembly with a blade body of **indeterminate** length having a set of leaf springs disposed therein, but lacks a backbone made of a **single, unitary**, resiliently flexible beam and a force applying member connected to a backbone at points separated by spacing distance S (expressed in millimeters), wherein S equals between 0.1 and 0.35 of the total length of the backbone (expressed in millimeters).

The Quinlan et al. '754 patent similarly lacks a backbone made of a **single, unitary**, resiliently flexible beam and a force applying member connected to a backbone at two spaced apart points so as to have a ratio, R, of the spacing distance between the points and the total length being between 0.1 and 0.35.

On the other hand, the Examiner asserts that an accurate measurement can be taken from the drawings of the Quinlan et al. '395 patent and used for purposes of anticipating the claims of the present invention. Applicant respectfully traverses this assertion and submits that a rejection based on measurements taken from the drawings are improper under MPEP §2125. However, in the interest of advancing the prosecution of the present claims, applicant has amended claims 1 and 2 as noted above. At any rate, the Quinlan et al. '395 patent merely discloses a windshield wiper assembly with a blade body having a set of leaf springs disposed therein, but lacks a backbone made of a **single, unitary**, resiliently flexible beam and a force applying member connected to a backbone

at points separated by spacing distance S (expressed in millimeters), wherein S equals between 0.1 and 0.35 of the total length of the backbone (expressed in millimeters). The Quinlan et al. '395 patent similarly lacks a backbone made of a **single, unitary**, resiliently flexible beam and a force applying member connected to a backbone at two spaced apart points so as to have a ratio, R, of the spacing distance between the points and the total length being between 0.1 and 0.35. Therefore, it is respectfully submitted that the present invention as defined in independent claims 1 and 2 and the claims dependent therefrom are neither disclosed or suggested by either the Quinlan et al. '754 or '395 patents.

### **35 U.S.C. § 103(a)**

As stated above, claim 6 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Quinlan et al. '395 patent and the Quinlan et al. '754 patent in view of U.S. Patent No. 5,485,650 to Swanepoel. Claim 6 was also rejected under 35 U.S.C. § 103(a) as being unpatentable over the Quinlan et al. '395 patent and the Quinlan et al. '754 patent in view of U.S. Patent No. 3,192,551 to Appel. Claim 6 is dependent upon independent claim 1 and adds further perfecting limitations. Importantly, neither the Swanepoel nor the Appel patents make up for the deficiencies of the Quinlan et al. '395 and '754 patents. More specifically, neither the Swanepoel '650 patent nor the Appel '551 patent—standing alone or in combination with any of the cited art—discloses or suggests a windscreen wiper with a backbone made of a single, unitary, resiliently flexible beam and a force applying member connected to a backbone at points separated by spacing distance S (expressed in millimeters), wherein S equals between 0.1 and 0.35 of the total length of the backbone (expressed in millimeters) as required by independent claim 1.

For the reasons set out above, none of the prior art references, either alone or in combination, suggests the subject invention. However, even if they did, they could only be applied through

hindsight after restructuring the disclosure of the prior art in view of applicant's invention. A rearrangement of the wipers described in the prior art to derive applicant's invention would, in and of itself, be an invention. Therefore, applicant respectfully requests reconsideration of the rejections based on 35 U.S.C. §103(a).

### **New Claim 13**

Claim 13 has been added to describe an invention that includes structure that is neither disclosed nor suggested by the Quinlan et al. '395 and '754, Appel '551, or Swanepoel '650 patents. Applicant respectfully submits that no new matter has been added. Claim 13 incorporates all of the limitations of claim 1 as it was originally filed. However, the lower bound of the claimed range is  $S_1 = 0.15 * L$  instead of  $S_1 = 0.10 * L$ .

As noted above, applicant respectfully submits that a rejection based on measurements taken from the drawings are improper under MPEP §2125. However, even if such a rejection was proper, it is clear that none of the wipers from the cited art has dimensions falling within the range of claim 13. The claimed range was developed over the course of approximately four years of research. During this time, hundreds of wiper force distribution analyses were performed, and millions of research dollars were spent, thereby demonstrating the nonobviousness of the claimed range. As such, none of the cited prior art, either standing alone or in combination, discloses or suggests the windscreen wiper of added claim 13. Therefore, applicant respectfully seeks allowance of added claim 13.

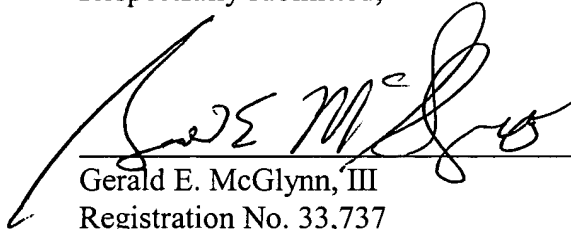
### **Conclusion**

In view of the above, it is respectfully submitted that independent claims 1 and 2, as

amended, as well as new independent claim 13 each recite structure that is neither disclosed nor suggested by the prior art and is patentably distinguishable from the subject matter of the Quinlan et al. '754, the Quinlan et al. '395, the Appel '551, and the Swanepoel '650 patents discussed above. Claims 3-10 are all ultimately dependent upon either independent claim 1 or 2 and add further perfecting limitations thereto. Accordingly, applicant respectfully submits that the present invention has been adequately defined over the prior art of record in this case. Therefore, applicant respectfully solicits the allowance of the claims pending in this case.

The Examiner is encouraged to contact the undersigned attorney via telephone if he has any questions or additional comments concerning the patentability of these claims.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Gerald E. McGlynn, III", is written over a horizontal line.

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